

**Notice of Allowability**

Application No.

10/783,988

Applicant(s)

CHIGA, ANTONIO

Examiner

Neil Turk

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/6/07.
2. ☒ The allowed claim(s) is/are 1-60.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 6/18/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other See Continuation Sheet.

Continuation of Attachment(s) 9. Other: The drawings submitted on 2/20/04 are accepted..

## DETAILED ACTION

### Remarks

This Office Action fully acknowledges Applicant's remarks filed on June 6<sup>th</sup>, 2007.

Claims 1-60 are allowed.

### *Allowable Subject Matter*

Claims 1-60 are allowed.

## EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Bradley Lane on August 20<sup>th</sup>, 2007.

The application has been amended as follows:

A full listing of the claims is attached. The claims are amended as attached.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to teach or fairly suggest a filter assembly for medical and laboratory use with a cover having a perimeter and an inlet and a bottom part having an underside and an outlet, in which a plurality of plastic spring levers are distributed around the perimeter and are rotatable on pivot points, including hook-shaped projections that project

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inwardly relative to the cover perimeter and wherein the spring levers are resiliently pre-tensioned to direct the hook-shaped projections inwardly relative to the cover perimeter and the hook-shaped projections releaseably overlap and attach to the bottom part underside upon actuation of the flaps, and wherein the filter assembly is adapted to clamp a filter membrane between the cover and the bottom part in a fluid-tight manner.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil Turk whose telephone number is 571-272-8914. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NT

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700

1. A filter assembly for medical and laboratory use comprising a housing, the housing comprising:

- a plastic cover having a perimeter and comprising an inlet;
- a bottom part having an underside and comprising an outlet; and
- a plurality of plastic spring levers distributed around the perimeter of the cover and unitarily formed with the plastic cover, the spring levers rotatable at pivot points and including hook-shaped projections projecting inwardly relative to the cover perimeter on one side of the pivot points and actuation flaps on the other side of the pivot points, wherein the spring levers are resiliently pre-tensioned to direct the hook-shaped projections inwardly relative to the cover perimeter and the hook-shaped projections releasably overlapping and attaching to the bottom part underside upon actuation of the actuation flaps, wherein the filter assembly is adapted to clamp a filter membrane between the cover and the bottom part in a fluid-tight manner when the hook-shaped projections overlap and attach to the bottom part underside.

2. (currently amended) A filter assembly according to claim 1, wherein the perimeter of the cover has a circumference and the underside of the bottom part comprises a bottom rim, and wherein the hook-shaped projections overlap the underside of the bottom rim of the bottom part to releasably attach thereto, and wherein the spring levers are adapted to rotate about the pivot points upon actuation of the upwardly projecting actuation flaps in a radial direction relative to the circumference of the cover.

3. A filter assembly according to claim 2, wherein the spring levers are molded onto flaps laterally projecting from the cover, which flaps form the pivot points of the spring levers.

4. A filter assembly according to claim 3, wherein the plurality of spring levers comprises three spring levers distributed equidistantly around the circumference of the cover.

5. A filter assembly according to claim 4, further comprising an annular seal between the cover and the bottom part, wherein the cover has ~~comprises~~ an annular channel and a free annular space, and wherein the bottom part comprises an annular projection engaging the free annular space, wherein the annular seal is disposed in the annular channel.

6. A filter assembly according to claim 5, wherein a disk-shaped supporting body for the filter membrane is disposed in a recess of the bottom part, and wherein the recess comprises supporting ribs surrounding the outlet.

7. A filter assembly according to claim 6, wherein the supporting body comprises a porous material.

8. A filter assembly according to claim 7, wherein the filter membrane comprises a lateral tongue extending from the closed housing.

9. A filter assembly according to claim 8, wherein the bottom part has ~~comprises~~ an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.

10. A filter assembly according to claim 9, wherein the cover and the bottom part each further comprises a recess for the passage of the tongue of the filter membrane.

11. A filter assembly according to claim 5, wherein the filter membrane comprises a lateral tongue extending from the closed housing.

12. A filter assembly according to claim 11, wherein the bottom part has ~~comprises~~ an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and ~~wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.~~

13. A filter assembly according to claim 12, wherein the cover and the bottom part each further comprises a recess for the passage of the tongue of the filter membrane.

14. A filter assembly according to claim 5, wherein the bottom part has ~~comprises~~ an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and ~~wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.~~

15. A filter assembly according to claim 14, wherein the cover and the bottom part each further comprises a recess for the passage of a tongue of the filter membrane.

16. A filter assembly according to claim 1, wherein the cover has a circumference and the plurality of spring levers comprises three spring levers distributed equidistantly around the circumference of the cover.

17. A filter assembly according to claim 16, further comprising an annular seal between the cover and the bottom part, wherein the cover has ~~comprises~~ an annular channel and a free annular space, and wherein the bottom part comprises an annular projection engaging the free annular space, wherein the annular seal is disposed in the annular channel.

18. A filter assembly according to claim 17, further comprising an annular projection such that with the housing closed a circumferential rim of the filter membrane is clamped between the annular seal and a contact surface



of the bottom part, and further comprising a disk-shaped supporting body for the filter membrane, and the bottom part further comprising a recess wherein the a disk-shaped supporting body for the filter membrane is disposed in the a recess of the bottom part, and wherein the recess further comprises supporting ribs surrounding the outlet.

19. A filter assembly according to claim 18, wherein the supporting body comprises a porous material.

20. A filter assembly according to claim 19, wherein the filter membrane comprises a lateral tongue extending from the closed housing.

21. A filter assembly according to claim 20, wherein the bottom part has comprises an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.

22. A filter assembly according to claim 21, wherein the cover and the bottom part each further comprises a recess for the passage of the tongue of the filter membrane.

23. A filter assembly according to claim 17, wherein the filter membrane comprises a lateral tongue extending from the closed housing.

24. A filter assembly according to claim 23, wherein the bottom part has comprises an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.

25. A filter assembly according to claim 24, wherein the cover and the bottom part each further comprises a recess for the passage of the tongue of the filter membrane.

26. A filter assembly according to claim 17, wherein the bottom part has ~~comprises~~ an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and ~~wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.~~

27. A filter assembly according to claim 26, wherein the cover and the bottom part each further comprises a recess for the passage of a tongue of the filter membrane.

28. A filter assembly according to claim 1, wherein the spring levers are molded onto members laterally projecting from the cover, which flaps form the pivot points of the spring levers.

29. A filter assembly according to claim 28, wherein the cover has a circumference and the plurality of spring levers comprises three spring levers distributed equidistantly around the circumference of the cover.

30. A filter assembly according to claim 29, further comprising an annular seal between the cover and the bottom part, wherein the cover has ~~comprises~~ an annular channel and a free annular space, and wherein the bottom part comprises an annular projection engaging the free annular space, wherein the annular seal is disposed in the annular channel.

31. A filter assembly according to claim 30, further comprising an annular projection such that with the housing closed a circumferential rim of the filter membrane is clamped between the annular seal and a contact surface of the bottom part, wherein the bottom part further includes a recess, and wherein the recess comprises supporting ribs surrounding the outlet.

32. A filter assembly according to claim 31, wherein the supporting body comprises a porous material.

33. A filter assembly according to claim 32, wherein the filter membrane comprises a lateral tongue extending from the closed housing.

34. A filter assembly according to claim 33, wherein the bottom part ~~has~~ comprises an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.

35. A filter assembly according to claim 34, wherein the cover and the bottom part each further comprises a recess for the passage of the tongue of the filter membrane.

36. A filter assembly according to claim 1, further comprising an annular seal between the cover and the bottom part, wherein the cover ~~has~~ comprises an annular channel and a free annular space, and wherein the bottom part comprises an annular projection engaging the free annular space, wherein the annular seal is disposed in the annular channel.

37. A filter assembly according to claim 36, wherein the filter membrane comprises a lateral tongue extending from the closed housing.

38. A filter assembly according to claim 37, wherein the bottom part ~~has~~ comprises an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and ~~wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.~~

39. A filter assembly according to claim 38, wherein the cover and the bottom part each further comprises a recess for the passage of a tongue of the filter membrane.

40. A filter assembly according to claim 36, further comprising an annular projection such that with the housing closed a circumferential rim of the filter membrane is clamped between the annular seal and a contact surface of the bottom part, wherein the bottom part further includes a recess, and wherein the recess comprises supporting ribs surrounding the outlet.

41. A filter assembly according to claim 40, wherein the supporting body comprises a porous material.

42. A filter assembly according to claim 41, wherein the filter membrane comprises a lateral tongue extending from the closed housing.

43. A filter assembly according to claim 42, wherein the bottom part has comprises an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.

44. A filter assembly according to claim 43, wherein the cover and the bottom part each further comprises a recess for the passage of the tongue of the filter membrane.

45. A filter assembly according to claim 1, wherein the filter membrane comprises a lateral tongue extending from the closed housing.

46. A filter assembly according to claim 45, wherein the bottom part has comprises an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and

~~wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.~~

47. A filter assembly according to claim 46, wherein the cover and the bottom part each comprises a recess for the passage of the tongue of the filter membrane.

48. A filter assembly according to claim 1, wherein the bottom part has ~~comprises~~ an annular channel defined in part by an exterior wall and a bottom, which exterior wall is overlapped by the hook-shaped projections and ~~wherein the bottom of the annular channel is positioned generally at a same height as a height of the bottom of the recess.~~

49. A filter assembly according to claim 48, wherein the cover and the bottom part each further comprises a recess for the passage of a tongue of the filter membrane.

50. A filter assembly for medical and laboratory use and adapted to receive a filter media sheet, the filter assembly comprising:

- a plastic\_cover\_having a perimeter and comprising an inlet;
- a bottom part having an underside and comprising an outlet;
- a means for supporting the filter media sheet; and
- a plurality of plastic spring levers distributed around the

perimeter of the cover and unitarily formed with the plastic cover, the spring levers rotatable at pivot points and including hook-shaped projections oriented inwardly relative to the perimeter and on one side of the pivot points and actuation flaps on the other side of the pivot points, wherein the spring levers are resiliently pre-tensioned to direct the hook-shaped projections inwardly relative to the cover perimeter and the hook-shaped projections releasably overlapping and attaching to the bottom part underside\_upon actuation of the flaps, wherein the filter assembly is adapted to clamp a filter media sheet

between the cover and the bottom part in a fluid-tight manner when the hook-shaped projections overlap and attach to the bottom part underside.

51. A filter assembly according to claim 50, wherein the perimeter of the cover has a circumference and the underside of the bottom part comprises a bottom rim, and wherein the hook-shaped projections overlap the underside of the bottom rim of the bottom part to releasably attach thereto, and wherein the spring levers are adapted to rotate about the pivot points upon actuation of the upwardly projecting actuation flaps in a radial direction relative to the circumference of the cover.

52. A filter assembly according to claim 50, further comprising an annular seal between the cover and the bottom part, wherein the cover has ~~comprises~~ an annular channel and a free annular space, and wherein the bottom part comprises an annular projection engaging the free annular space, wherein the annular seal is disposed in the annular channel.

53. A filter assembly according to claim 50, wherein the means for supporting the filter media comprises a disk-shaped supporting body for the filter media sheet disposed in a recess of the bottom part, and wherein the recess comprises supporting ribs surrounding the outlet.

54. A filter assembly according to claim 50 wherein the means for supporting the filter media comprises a plurality of ribs.

55. A filter assembly according to claim 50, wherein the filter media sheet comprises a lateral tongue extending from the closed housing.

56. A filter assembly according to claim 55, wherein the cover and the bottom part each further comprises a recess for the passage of the tongue of the filter media sheet.

57. A filter assembly according to claim 51, wherein the means for supporting the filter media comprises a disk-shaped supporting body for the filter media sheet disposed in a recess of the bottom part, and wherein the recess comprises supporting ribs surrounding the outlet.

58. A filter assembly according to claim 51 wherein the means for supporting the filter media comprises a plurality of ribs.

59. A filter assembly according to claim 52, wherein the means for supporting the filter media comprises a disk-shaped supporting body for the filter media sheet disposed in a recess of the bottom part, and wherein the recess comprises supporting ribs surrounding the outlet.

60. A filter assembly according to claim 52 wherein the means for supporting the filter media comprises a plurality of ribs.